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EXAMINER

WANG, JUE S

ART UNIT	PAPER NUMBER
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2193

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08/24/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/729,773

Applicant(s)

SCOTT, JEFFREY B.

Examiner

Jue S. Wang

Art Unit

2193

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-12 have been examined.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. The following lacks antecedent basis in the claims:

- i. Claim 11, "said new version number" in lines 1-2, "said new version" in line 2, and "said existing object" in line 3. Because of recitation of "determining if said imported object already exists" and "determining a new version number for a new version" in claim 10, it is believed claim 11 was intended to depend on claim 10 and it is treated as such for compact prosecution of the claims.

B. The following claim language is not clear and indefinite:

- i. As per claim 1, lines 5-6, the phrase "a validation function operable on said processor to determine whether said object is eligible for automatic check-in" is used. This limitation is not clearly understood because it is not clear how an object is determined to be eligible for automatic check-in (i.e., is the object eligible for automatic check-in if another version already exists in the source

control system, or is the object eligible if the object does not already exist in the source control system?).

ii. As per claim 1, lines 8-9, the phrase “determining a version number for said object” is used. This limitation is not clearly understood because it is not clear how the version number is determined (i.e., is the version number determined from an old version number already associated with the imported object, or is a new version number assigned systematically to the imported object which is imported without a pre-existing version number?).

iii. As per claim 7, line 5, the phrase “validating said import request” is used. This limitation is not clearly understood because it is not clear how the import request is validated (i.e., is the import request validated when it is determined that the user has permission to perform the import, or is the import request validated when the object being imported is validated as authentic?).

iv. As per claim 7, line 6, the phrase “automatically checking-in said import object” is used. This limitation is not clearly understood because it is not clear if the outcome of validating the import request as recited in line 5 determines whether or not the imported object is automatically checked-in (i.e., is the imported object automatically checked-in only if the import request is successfully validated, or is the imported object automatically checked-in regardless of whether the validation succeeds or fails?).

v. As per claim 8, line 7, the phrase “locking said status of said existing object” is used. This limitation is not clearly understood because it is not clear if

and how this step is performed when there is not an existing object when the determining step recited in lines 3-4 determines that the import object does not already exist as an existing object in a source control system? Furthermore, it is not clear if the outcome of the determining steps recited in lines 3-4 and 5 determines whether or not to lock the status of the existing object.

vi. As per claim 10, line 5 and 6, the phrase “said existing object” is used. This limitation is not clearly understood because it is not clear if and how this step is performed when there is not an existing object when the determining step recited in lines 3-4 determines that the import object does not already exist as an existing object in a source control system?

vii. As per claim 10, lines 7-8, the phrase “checking-in said import object” is used. This limitation is not clearly understood because it is not clear if the outcome of determining steps recited in lines 3-4, 5, and 6 determines whether or not the imported object is check-in.

viii. As per claim 11, lines 5-6 and 8-9, the phrase “a minor increment of said existing version number” and “a major increment of said version number” is used. This limitation is not clearly understood because it is not clear how a version number is structured and what is considered as a “minor increment” and a “major increment” to a version number.

Appropriate corrections are required.

Any claim not specifically addressed, above, is being rejected as incorporating the deficiencies of a claim upon which it depends.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cederqvist, "Version Management with CVS".

4. As per claim 7, Cederqvist teaches the invention as claimed, including a method comprising:

receiving an import request for an import object from an external source from a user (see page 69, section 13.2, paragraph 1);

validating said import request (see page 57, paragraph 3, page 69, section 13.2, paragraph 3 and page 95, section A.12, paragraph 4; EN: the import request is validated by checking if the file being imported already exists in the repository and has been locally modified which results in a conflict, and CVS refuses to check in a file if a conflict occurs until the conflict is resolved);

providing an import status (see pages 96-97, section A.12.2).

Cederqvist does not explicitly teach automatically checking-in said imported object. However, Cederqvist teaches that the "import" command should be used to add files received from a third-party vendor, where adding files to the repository typically requires two separate commands: an "add" command to tell CVS that you want to version control the file and a

Art Unit: 2193

“commit” command to actually check in the file (see page 43, section 7.1). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that the imported object is automatically checked in via the import command since files added to the repository must be checked in and the import command does not require a separate “commit” command to check in the imported object.

5. Claims 1-6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cederqvist, “Version Management with CVS”, in view of Hammack et al. (US 6,449,624 B1, hereinafter Hammack).

6. As per claim 1, Cederqvist teaches a source control system, comprising:

an import function operable on said processor to import an object from an external source (see page 69, section 13.2, paragraph 1);

a validation function operable on said processor to determine whether said object is eligible for automatic check-in (see page 96, paragraph 1, EN: files that are not ignored are eligible for importing. While Cederqvist does not explicitly teach that imported files are automatically checked-in, Cederqvist does teach that imported files are checked in (see page 69, paragraph 2). Furthermore, since adding files to the repository typically requires two separate commands: an “add” command to tell CVS that you want to version control the file and a “commit” command to actually check in the file (see page 43, section 7.1), it would have been obvious to one of ordinary skill in the art at the time of the invention that the imported object is automatically checked in via the import command since files added to the repository must be

Art Unit: 2193

checked in and the import command does not require a separate “commit” command to check in the imported object.); and

a check-in function to be performed automatically upon import, including determining a version number for said object (see page 96, paragraph 3).

Cederqvist does not teach that the source control system is for a process control system with a processor, where import, validation, and check-in functions are operable on the processor.

Hammack teaches a process control system with a processor and version control functions for process configurations such as import and check-in (see Figs 1, 4, 6-8, abstract, column 2, lines 29-67, column 8, line 33 – column 13, line 57, column 16, lines 19-57).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the source control system of Cederqvist with the import function into the process control system of Hammack because it is desirable to provide version control for process configurations in a process control system since multiple process operators modifying the process configuration stored in a configuration database will lead to version control problems when one operator is unaware of the work done by another operator (see column 1, line 51 – column 2, line 15 of Hammack), and in particular, the import function taught by Cederqvist allows the process control system to import process configurations from third parties (see page 69 of Cederqvist).

7. As per claim 2, Cederqvist does not teach that said object defines a control strategy.

Hammack teaches that the object tracked in the version control database defines control strategies (see Fig 3, column 6, line 19 – column 7, line 41).

Art Unit: 2193

8. As per claim 3, Cederqvist does not teach that the system comprising at least one controller capable of being loaded with said control strategy by said processor.

Hammack teaches at least one controller capable of being loaded with said control strategy by said processor (see Fig 1, item 12, column 3, lines 54-59, column 6, lines 19-24).

9. As per claim 4, Cederqvist does not teach the system further comprises at least one client in communication with said processor.

Hammack teaches the system further comprises at least one client in communication with said processor (see Fig 1, column 3, lines 48-67, column 6, lines 19-24).

10. As per claim 5, Cederqvist does not teach said control strategy is distributed from said processor to said at least one client.

Hammack teaches that the control strategy is distributed from said processor to said at least one client (see column 6, lines 19-24).

11. As per claim 6, Cederqvist teaches a database accessible by a processor to store said object (see page 69, the repository is the database that stores imported objects).

12. As per claim 12, Cederqvist does not teach that said imported object defines a control strategy.

Hammack teaches that the object tracked in the version control database defines control strategies (see Fig 3, column 6, line 19 – column 7, line 41).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Cederqvist such that the imported object defines a control strategy as taught by Hammack because it is desirable to provide version control for process configurations which define control strategies in a process control system since multiple process operators modifying the process configuration stored in a configuration database will lead to version control problems when one operator is unaware of the work done by another operator (see column 1, line 51 – column 2, line 15 of Hammack).

13. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cederqvist, “Version Management with CVS”, in view of Tichy et al., “RCS – A system for Version Control” (hereinafter Tichy).

14. As per claim 8, Cederqvist teaches said validating said import request comprises:
determining if said import object already exists as an existing object in a source control system (see page 97, lines 1-2 and 4-5);

Cederqvist does not teach determining if said existing object has a status of checked-in, determining if said user has permission to check-in; and locking said status of said existing object.

Tichy teaches a system for version control including determining if a user has permission to check-in (see page 12, paragraph 3), determining if an object is checked in when checking out an object (see pages 11-12, section 2.4, paragraph 3) and locking the status of an object when someone intends to edit it (see page 11, section 2.4, paragraphs 2, 3).

Art Unit: 2193

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Cederqvist to determine if said user has permission to check-in as taught by Tichy because it restricts the set of people who would have update permission (see page 12, paragraph 3); and it would be obvious to have modify Cederqvist to determine if said existing object has a status of checked-in and to lock the existing object as taught by Tichy because it prevents another person from depositing competing changes to the same revision while the existing object is being updated by imported object (see page 11, section 2.4, paragraphs 2 and 3).

15. As per claim 9, Cederqvist does not teach unlocking said status of said existing object, after said imported object has been automatically checking-in.

Tichy teaches removing the lock after a check-in (see page 11, section 2.4, paragraph 3).

16. As per claim 10, Cederqvist teaches said automatically checking-in said import object comprises:

determining if said import object already exists as an existing object in a source control system (see page 97, lines 1-2 and 4-5);

determining a new version number for a new version of said existing object (see page 96, paragraph 3);

checking-in said imported object as said new version using said new version number (see page 69, paragraph 2, page 96, paragraph 3); and

Art Unit: 2193

storing a comment in said source control system indicating an automatic check-in for said new version (see page 69, section 13.2, paragraph 1 and page 96, section A.12.1, specifically, the “-m message” option).

Cederqvist does not teach determining if a status of said existing object is locked.

Tichy teaches a system for version control including determining if a status of an object is locked during a check-in operation (see page 11, section 2.4, paragraph 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Cederqvist to determine if the status of the imported object is locked during a check-in operation as taught by Tichy because it prevents multiple sources from checking in changes on the same file (see page 11, section 2.4, paragraphs 2 and 3 of Tichy).

17. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cederqvist, “Version Management with CVS”, in view of Tichy et al., “RCS – A system for Version Control” (hereinafter Tichy), as applied to claim 10 above, further in view of Shiman et al. (US 2002/0019827 A1, hereinafter Shiman).

18. As per claim 11 (currently dependent on claim 10), Cederqvist and Tichy do not teach that determining said new version number for said new version comprises: determining an existing version number of said existing object; determining an import version number from said import object; setting said new version number to a minor increment of said existing version number, if said import version number is equal to said existing version number; setting said new version number to a major increment of said existing version number, if said import version

Art Unit: 2193

number is less than said existing version number; and setting said new version number to said import version number, if said import version number is greater than said existing version number.

Shiman teaches a method for managing documents in a centralized document repository (see abstract), where a new version number is determined for files uploaded to the repository, comprising: determining an existing identify tag including existing version number (see Fig 4, Fig 7, step 2712, [0074], and [0196]); determining an upload version number from the uploaded file (see Fig 4, Fig 7, step 2701, [0074], and [0193]), setting the version number to a minor increment of said existing version number, if said uploaded version number is equal to said existing version number (see Fig 7, steps 2710, 2712, and [0196]). Shiman does not explicitly teach setting the new version number to a major increment of said existing version number, if said uploaded version is less than said existing version. However, Shiman teaches setting the new version number to be a major increment when the Branch tag of the uploaded file does not match an existing tag (see Fig 4, Fig 7, steps 2703, 2704, [0074], [0078], [0194]). Similarly, it would have been obvious to one of ordinary skill in the art at the time of the invention that a new branch with a major increment of the version number is created if the uploaded version number is less than the existing version number because the uploaded file must be from a new branch of development. Shiman also does not explicitly teach setting the new version number to the uploaded version number, if the uploaded version number is greater than the existing version number. However, Shiman teaches setting the new version to the next available minor version not used when the uploaded version is greater than the existing version (see Fig 7, steps 2710, 2711, [0196]). It would have been obvious to one of ordinary skill in the art that setting the new

Art Unit: 2193

version number to the next available minor version achieves the same result as setting the new version number to the version number of the uploaded file because the next available minor version must be greater than all currently used minor versions since minor versions are incremented by one each time the owner submits a new document (see [0078]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Cederqvist and Tichy to determine determining an existing version number of said existing object; determining an import version number from said import object; setting said new version number to a minor increment of said existing version number, if said import version number is equal to said existing version number; setting said new version number to a major increment of said existing version number, if said import version number is less than said existing version number; and setting said new version number to said import version number, if said import version number is greater than said existing version number as taught by Shiman because it allows the import function of Cederqvist to import objects that already have version numbers associated and to use the version number to appropriately integrate the imported object into the source control system by constructing a new version number based on the version number of the imported object.

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Leblang et al. (US 5,649,200) is cited to teach dynamic rule-based version control system.
- Allen et al. (US 5,675,802) is cited to teach version control system for geographically distributed software development.
- Dardinski et al. (US 7,096,465 B1) is cited to teach process control configuration system with parameterized objects.
- De Groot et al. (US 2005/0215794 A1) is cited to teach ensuring a consistent control system configuration methodology through an enforceable user defined development life cycle.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jue S. Wang whose telephone number is (571) 270-1655. The examiner can normally be reached on M-Th 7:30 am - 5:00pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2193

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Jue Wang
Examiner
Art Unit 2193


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